UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/825,661	04/03/2001	Jeffrey C. Mogul	9772-0323-999	3408

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HEWLETT PACKARD COMPANY
P O BOX 272400, 3404 E. HARMONY ROAD
INTELLECTUAL PROPERTY ADMINISTRATION
FORT COLLINS, CO 80527-2400

EXAMINER
PEREZ DAPLE, AARON C

ART UNIT	PAPER NUMBER
2154	

DATE MAILED: 08/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

		Application No.	Applicant(s)	
Office Action Summary		09/825,661	MOGUL, JEFFREY C.	
		Examiner	Art Unit	
		Aaron C. Perez-Daple	2154	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>06 June 2005</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-20</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-20</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

1.   This Action is in response to Amendment filed 6/6/05, which has been fully considered.

2.   Original claims 1-18 and new claims 19 and 20 are presented for examination.

3.   This Action is FINAL.

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5.   **Claims 1-20** are rejected under 35 U.S.C. 103(a) as being unpatentable over DRP

Consortium ("The HTTP Distribution and Replication Protocol,"

http://www.DRP.org/TR/NOTE, August 25, 1997.) (hereinafter DRP) in view of He (US

5,734,898) (hereinafter He).

6.   As for claims 1, 5, 10, 14, 19 and 20, DRP discloses a method for reducing network

latency, comprising the steps of:

sending a request for a data object to a server (section 2.3, first paragraph, "A DRP

index...that are specified."; section 2.4, Content-ID Header Field);

receiving a header portion of a response to said request (section 2.1, last paragraph, "A

content identifier...in the URI specification."; section 2.4, Content-ID Header Field);

parsing said header portion for a digest value (section 2.4, Content-ID Header Field,

parsing is inherent for removing the digest value from the header string so that it can then be

used in the comparison);

comparing said digest value to a digest index (; section 2.3, Index Caching, "An HTTP

proxy...protocol specification."; section 2.4, third paragraph, "Note that a client...from

different hosts."; section 2.4, Content-ID Header Field);

retrieving a cached data object from a cache if said digest value has a match in said digest

index (section 2.4, third paragraph, "Note that a...from different hosts.");

sending said cached data object to a client (section 2.4, third paragraph, "Note that

a...from different hosts."; section 2.6, "An HTTP proxy....the differential reply.").

Although obvious to one of ordinary skill in the art and arguably inherent to DRP, DRP

does not explicitly disclose informing the server to stop sending a remaining portion of said

response (thereby terminating the connection with the server). He teaches informing the

server to stop sending a remaining portion of said response for the purpose of preventing the

download of a file already stored in the cache (col. 3, lines 32-40, "Fig. 20 shows...of

communication line."). It would have been obvious to one of ordinary skill in the art at the

time of the invention to modify DRP by informing the server to stop sending a remaining

portion of said response for the purpose of preventing the download of a file already stored in

the cache, as taught by He. The Examiner also notes that this step would occur in response to

determining that the digest value has a match in the index. See also the Response to

Arguments below.

7.   As for claims 2 and 11, DRP discloses the method of claims 1 and 10, further comprising

the steps of:

        checking said cache for said data object before sending the request to said server (section

2.4, third paragraph, "Note that a...from different hosts."); and

        sending said data object to said client if said data object is found in said cache (section

2.4, third paragraph, "Note that a...from different hosts.").

8.   As for claims 3 and 12, DRP discloses the method of claims 1 and 10 wherein said digest

index is a hash table (the index of DRP is inherently a hash table because it allows for

accessing records using a digest value; see cited webopedia.com definition; sections 2.1-2.2,

"The DRP protocol...set of files:").

9.   As for claims 4 and 13, DRP discloses the method of claims 1 and 10, further comprising

the steps of:

        receiving said remaining portion of said response from said server if no match for said

digest value is found in said digest index based on said comparing step (section 2.4,

paragraphs 1-4, "By requesting an...to be different."); and

        sending said remaining portion of said response to said client (section 2.4, paragraphs 1-

4, "By requesting an...to be different.").

10.   As for claims 6 and 15, DRP discloses a method for reducing network latency,

comprising the steps of:

        sending a request for a data object to a server (section 2.3, first paragraph, "A DRP

index...that are specified.");

receiving a server response from said server (section 2.3, second paragraph, "The index

file...such as a database.");

calculating a digest value for said data object based on said server response (section 2.1,

Content Identifiers, "The DRP protocol...the URI specification."; section 2.4, Content-ID

Header Field, "Now that it...content was returned.");

sending a response to a client cache starting with a header portion, said header portion

including said digest value and enabling said client cache to compare said digest value to a

digest index, retrieve a cached data object from said client cache if said digest value has a

match in said digest index, and send said cached data object to a client (section 2.1, last

paragraph, "A content identifier...in the URI specification."; section 2.4, paragraphs 1-4, "By

requesting an...to be different.").

Although obvious to one of ordinary skill in the art and arguably inherent to DRP, DRP

does not explicitly disclose informing the server to stop sending a remaining portion of said

response. He teaches informing the server to stop sending a remaining portion of said

response for the purpose of preventing the download of a file already stored in the cache (col.

3, lines 32-40, "Fig. 20 shows...of communication line."). It would have been obvious to

one of ordinary skill in the art at the time of the invention to modify DRP by informing the

server to stop sending a remaining portion of said response for the purpose of preventing the

download of a file already stored in the cache, as taught by He.

11.   As for claims 7 and 16, DRP discloses a method for reducing network retrieval latency,

comprising the steps of:

receiving a first request for a data object (section 2.3, first paragraph, "A DRP

index...that are specified.");

obtaining a digest value of said requested data object (section 2.1, Content Identifiers,

"The DRP protocol...the URI specification.");

inserting said digest value into a header portion of a response (section 2.1, last paragraph,

"A content identifier...in the URI specification.");

sending said response, starting with said header portion (section 2.3, paragraphs 1-3, "A

DRP index...client up-to-date.").

Although obvious to one of ordinary skill in the art and arguably inherent to DRP, DRP

does not explicitly disclose informing the server to stop sending a remaining portion of said

response. He teaches informing the server to stop sending a remaining portion of said

response for the purpose of preventing the download of a file already stored in the cache (col.

3, lines 32-40, "Fig. 20 shows...of communication line."). It would have been obvious to

one of ordinary skill in the art at the time of the invention to modify DRP by informing the

server to stop sending a remaining portion of said response for the purpose of preventing the

download of a file already stored in the cache, as taught by He.

12.   As for claims 8 and 17, DRP discloses the method of claims 7 and 16, wherein said

obtaining includes the step of:

retrieving said digest value from a hash table (the index of DRP inherently comprises a

hash table, see cited webopedia.com definition; section 2.2, "To describe...set of files:").

13.   As for claims 9 and 18, DRP discloses the method of claims 7 and 16, wherein said

obtaining includes the step of:

calculating said digest value based on contents of said data object (section 2.1, Content

Identifiers, "The DRP protocol…the URI specification.").

Response to Arguments

14.   Applicant's arguments filed 6/6/05 have been fully considered but they are not

persuasive. In particular, Applicant asserts on pg. 10 of the Remarks that DRP fails to

disclose the server sending, in response to a client request, a digest for the current request and

making the comparison at the client or proxy cache. The Examiner respectfully disagrees.

On page 10, Applicant lists three methods for comparing digest values taught by DRP. The

Examiner agrees that DRP teaches these methods, but finds that DRP also teaches at least

one additional method not listed by Applicant. In particular, the passage on the Content-

Identifier Field within section 2.4 discloses that the client first sends a GET request to the

server. DRP further recites that, "The content identifier of the returned file should be

included in the HTTP reply header using the Content-ID header field." Note that the client

identifier is equivalent to the recited digest value. Therefore, DRP explicitly contemplates

receiving a header portion that includes a digest value in response to a client request. The

parsing step is inherent for extracting the digest for comparison. It is further clear from the

proceeding passages (Section 2.4, third paragraph; Section 2.3, Index Caching) that the

extracted content identifier may be compared to a cached index file that was previously

retrieved from the same or a different site in order to avoid duplicate downloading.

Applicant further asserts that DRP fails to disclose retrieving the content from a cache if

the digest value has a match in the index, stating that using the DRP scheme, "the content-ID

that is compared against the index for a site is not included in a header response to a request for an object." The Examiner respectfully disagrees. First, the Examiner notes that a primary purpose of DRP is to avoid redundant downloads of content that has already been cached. In particular, the third paragraph of Section 2.4 discusses using content identifiers to avoid downloading files for a second time. In the case where the content identifier is not known before-hand (e.g. such as when requesting data from a new site), the content identifier would be included in the response from the server. Although DRP discloses that the content identifier *may* in some cases be known prior to the request and therefore compared to the cache *before* sending the request to the server, DRP further recites, "If no content identifier is specified in the HTTP GET request, then the server should return the current version of the file...However, the reply should always include the Content-ID field if the correct content identifier is known....". Thus, DRP explicitly contemplates that the content identifier may also be retrieved from the server and compared after retrieval. In cases where the retrieved content identifier matches content already stored in the cache, the cached content would be used.

Furthermore, in order to avoid the redundant download, DRP would inherently have to cancel the request. If the request were not cancelled, then the download would proceed and the invention would not function as disclosed. Nonetheless, DRP does not explicitly disclose the details of how this cancellation is accomplished. He is relied upon to teach these details. Specifically, He discloses informing a server to stop sending a remaining portion of a response. In contrast to Applicant's remarks on pages 12 and 13, the cited portion of He reads directly on this limitation. Applicant asserts that He discloses aborting a transaction

but *not* informing the server to stop sending a portion of a response. The Examiner respectfully disagrees. As disclosed by He, the abort request is sent to the server for the express purpose of stopping the transmission (i.e. stopping sending the remaining portion of the response) and thus preventing the redundant download. The "transaction" referenced by He is the updating of a file in the cache. The server foregoes sending the file as a direct result of the received abort request. Thus, He reads directly on this limitation of the claims.

Applicant makes analogous arguments with respect to independent claims 6, 7, 10, 15 and 16. These claims are properly rejected for the same reasons cited above with respect to claim 1.

For all of these reasons, claims 1-18 are properly rejected under 35 USC 103(a).

Conclusion

15.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.
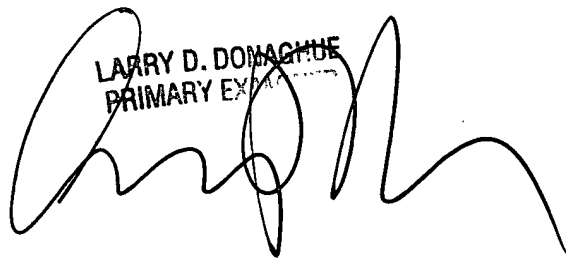
16.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Aaron C. Perez-Daple whose telephone number is (571) 272-

3974. The examiner can normally be reached on 9am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, John Follansbee can be reached on (571) 272-3964. The fax phone number for

the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published

applications may be obtained from either Private PAIR or Public PAIR. Status information

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about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access

to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197

(toll-free).

8/11/05

Aaron Perez-Daple

LARRY D. DONAGHUE
PRIMARY EXAMINER